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| 10/025,900 | 12/19/2001 | Konstantin I. Boudnik | SUNMP031 | 1972 |

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| EXAMINER |
|---|
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| ART UNIT | PAPER NUMBER |
|---|---|
| 2195 | |

DATE MAILED: 09/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

| | **Application No.** | **Applicant(s)** |
|---|---|---|
| ***Office Action Summary*** | 10/025,900 | BOUDNIK ET AL. |
| | **Examiner** | **Art Unit** | |
| | Jennifer N. To | 2195 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *19 July 2005*.

2a)☒ This action is **FINAL**.    2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-20* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

## DETAILED ACTION

1.      Claims 1-22 are presented for examination.

### *Claim Rejections - 35 USC § 103*

2.      The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3.      Claims 1-8, and 10-13 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Stamm (U.S. Patent No. 6711616), in view of Gross (U.S. Patent No.

5371883), and further in view of Dummermuth (U.S. Patent No. 6009454).

4.      Stamm and Gross were cited in the last office action.

5.      As per claim 1, Stamm teaches the invention substantially as claim including a

method for executing processing tasks in a distributed processing framework system

(abstract, lines 1-4), the method comprising:

        identifying a main task of a tasklist (col. 3, lines 1-3);

        identifying a subtask of the main task (col. 1, line 55; col. 2, lines 36-37); and

allocating computing resources for each of the main task and the subtask (fig. 5, col. 3, lines 14-20).

Stamm did not specifically teach deploying the main task to a first computing system that is part of allocated computing resources, a code of the main task being executed on the first computing system, the code of the main task having program instructions for requesting loading of code for the subtask to a second computing system that is part of the allocated computing resources, the code for the subtask is in client-server communication with the code for the main task, such that the code for the main task receives processing results directly from the code for the subtask.

6.    However, Gross teaches:

deploying the main task to a first computing system that is part of allocated computing resources (col. 2, lines 15-25), a code of the main task being executed on the first computing system (col. 2, lines 18-20), the code of the main task having program instructions for (col. 2, lines 30-31) requesting loading of code for the subtask to a second computing system that is part of the allocated computing resources (col. 3, lines 14-18), the code for the subtask being in client-server communication with the code for the main task (col. 2, lines 66-68, col. 3, lines 1-6), such that the code for the main task receives processing results directly from the code for the subtask (col. 3, lines 17-20).

7.     It would have been obvious to one of an ordinary skill in the art at the time the

invention was made to have combined the teaching of Stamm and Gross because

Gross deploying and executing the main task in the first computing system, then

sending the instruction for the subtask to be executed would improve the performance

of Stamm's system by providing a centralized test environment with a single control

process which exclusively governs test sequencing and timing and allowing easier

synchronization of the execution of testing across multiple machine (Gross, col. 1, lines

66-68; col. 2, lines 1-3).

8.     In addition Stamm and Gross did not specifically teach allocating computing

resource to tasks prior to proceeding to a next operation, the computer resources being

part of the distributed processing framework system.

9.     However, Dummermuth teaches allocating computing resource to tasks prior to

proceeding to a next operation, the computer resources being part of the distributed

processing framework system (col. 8, lines 44-50).

10.    It would have been obvious to one of an ordinary skill in the art at the time the

invention was made to have combined the teaching of Stamm, Gross, and

Dummermuth because Dummermuth teaching of allocated computing resource to tasks

prior to a next operation would improve the integrity of Stamm and Gross's system by

allowing multiple tasks to be executed with apparent simultaneity (Dummermuth, col. 1,

lines 11-12).

11.     As per claim 2, Gross teaches the processing results received from the subtask

are implemented to create a main task processing results to be communicated to a

system controller (col. 2, lines 33-43).

12.     As per claim 3, Stamm teaches the system controller releases the allocated

computing resources upon receiving the main task processing results from the main

task (col. 5, lines 48-53).

13.     As per claim 4, Gross teaches a plurality of subtasks in addition to the subtask,

the plurality of subtasks configured to be controlled by the main task (fig. 1).

14.     As per claim 5, Stamm teaches a method for distributing an execution of a

plurality of tasks within a tasklist by a system controller, the plurality of tasks configured

to be processed by a plurality of processing resources in a distributed processing

framework (DPF) system, the method comprising:

        loading the tasklist, the tasklist having a main task and a subtask (col. 3, lines 1-

7); and

        allocating a processing resources to execute each task within the tasklist (fig. 5;

col. 3, lines 14-20);

Gross teaches:

deploying the main task to a first processing resource for execution (col. 2, lines 15-18);

deploying the subtask to a second processing resource once a special request for the subtask is received from the main task (col. 4, lines 5-15); and

enabling communication between the main task and the subtask, the communication configured to provide the main task with a result of a subtask execution (col. 2, lines 66-68, col. 3, lines 1-6;col. 3, lines 17-20).

Dummermuth teaches allocating computing resource to tasks prior to proceeding to a next operation (col. 8, lines 44-50).

15.    As per claim 6, Stamm teaches communicating a result of a main task execution to the system controller, wherein the system controller releases the plurality of processing resources upon receiving the result of main task execution (col. 5, lines 48-53).

16.    As per claim 7, Stamm teaches allocating the processing resource to execute each task within the tasklist includes:

loading the tasklist by the system controller (fig. 3; col. 3, lines 1-7);

searching a registry service for the processing resource having a plurality of attributes substantially identical to a plurality of attributes of the main task and the substask within the tasklist (col. 4, lines 11-13; col. 8, lines 18-19); and

allocating the first and the second processing resources respectively having attributes identical to the main task and the subtask to the execution of the main task and subtask correspondingly having the identical attributes (col. 4, lines 13-15).

17.     As per claim 8, Stamm teaches deploying the subtask to the second processing resource once the special request for the subtask is received from the main task includes:

dispatching the special request to the system controller (col. 3, lines 58-59), the special request configured to include the plurality of attributes of the subtask (col. 3, lines 60-62);

searching the tasklist, the searching configured to locate the subtask having the plurality of attributes included in the special request (col. 4, lines 5-13); and

deploying the located subtask to the second processing resource having the plurality of attributes substantially identical to the plurality of attributes of the subtask (col. 4, lines 14-15).

18.     As per claim 10, Gross teaches the DPF is a distributed test framework (DTF) system (col. 1, lines 3-5).

19.     As per claim 11, Gross teaches the main task is operated on a processing resource server (fig. 1).

20.     As per claim 12, Stamm teaches the subtask is operated on a processing resource client (col. 3, lines 24-25; col. 3, line 34).

21.     As per claim 13, Gross teaches the main task is a test harness (fig. 1, col. 3, lines 16-17).

22.     Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stamm (U.S. Patent No. 6711616), in view of Gross (U.S. Patent No. 5371883), in view of Dummermuth (U.S. Patent No. 6009454), as applied in claim 1, and further in view of Downs (U.S. Patent No. 6112243).

23.     Stamm, Gross, and Downs were cited in the last office action.

24.     As per claim 9, Stamm, Gross, and Dummermuth teach the invention substantially as claimed in claim 1.  Stamm, Gross, and Dummermuth did not specifically teach the registry service is a look up service.

        However, Downs teaches the registry service is a look up service (fig. 2, item 32; col. 3, lines 65-67).

25.    It would have been obvious to one of an ordinary skill in the art at the time the

invention was made to have combined the teaching of Stamm, Gross, Dummermuth,

and Downs because Downs look up service would improve the integrity of Stamm

Gross, and Dummermuth's system by offering a minimum level of service and a level of

guarantee so that clients can select a variety of options that corresponding to client's

task, cost, and time requirement (Downs, col. 2, lines 32-34).

26.    Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Stamm (U.S. Patent No. 6711616), and in view of Dummermuth (U.S. Patent No.

6009454).

27.    Stamm was cited in the last office action.

28.    As per claim 14, Stamm teaches the invention substantially as claim including a

method for distributing an execution of a plurality of tasks by a system controller, the

plurality of tasks configured to be processed by a plurality of processing resources in a

distributed processing framework (DPF) system, the method comprising:

     allocating a respective processing resource to execute each task of the plurality

of tasks (fig. 5; col. 3, lines 14-20);

     deploying each task to the respective processing resource substantially at the

same time(col. 4, lines 19-26); receiving a result task from each processing resource

upon a conclusion of each task (col. 5, lines 48-51); and

releasing the plurality of processing resources upon receiving the result task from

each of the plurality of processing resources (col. 5, lines 50-53).

Stamm did not specifically teach loading a plurality of tasks to be executed.

29.    However, Stamm disclosed in response to a request from a client, the server

selects a subtask for execution (col. 1, lines 59-60).

30.    It would have been obvious to one of an ordinary skill in the art at the time the

invention was made to have recognized in response to requests the controller must load

a plurality of task available for selecting a task for execution. Stamm disclosed the step

of a server selects a subtask/task for execution. Therefore it would have been obvious

that the server would load the task/subtask to be available for selecting a task/subtask

for execution.

31.    In addition, Stamm did not specifically teach allocating computing resource to

tasks prior to proceeding to a next operation.

32.    However, Dummermuth teaches allocating computing resource to tasks prior to

proceeding to a next operation (col. 8, lines 44-50).

33.    It would have been obvious to one of an ordinary skill in the art at the time the

invention was made to have combined the teaching of Stamm and Dummermuth

because Dummermuth teaching of allocated computing resource to tasks prior to the

next operation would improve the integrity of Stamm's.system by allowing multiple tasks

to be executed with apparent simultaneity (Dummermuth, col. 1, lines 11-12).


34.    As per claim 15, Stamm teaches allocating respective processing resource to

execute each tasks of the plurality of tasks includes:

        searching a registry service for the processing resource having a plurality of

attributes identical to a plurality of attributes of each task (col. 4, lines 11-13; col. 8, lines

18-19); and

        allocating each of the processing resources having attributes identical to the

plurality of each of the tasks to the execution of the task having the identical attributes

(col. 4, lines 13-15).


35.    Claims 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Stamm (U.S. Patent No. 6711616), in view of Dummermuth (U.S. Patent No. 6009454),

as applied in claim 14, and further in view of Gross (U.S. Patent No. 5371883).


36.    Stamm and Gross were cited in the last office action.

37.    As per claim 16, Stamm and Dummermuth teach the invention substantially as claimed in claim 14. Stamm and Dummermuth did not specifically teach the DPF system is a distributed test framework system.

38.    However, Gross teaches the DPF system is a distributed test framework system (col. 1, lines 3-5).

39.    It would have been obvious to one of an ordinary skill in the art at the time the invention was made to have combined the teaching of Stamm, Dummermuth, and Gross because Gross testing system would improve the performance of Stamm and Dummermuth's system by providing a centralized test environment with a single control process which exclusively governs test sequencing and timing and allowing easier synchronization of the execution of testing across multiple machine (Gross, col. 1, lines 66-68; col. 2, lines 1-3).

40.    As per claim 17, Gross teaches the processing resource is a test system (fig. 1).

41.    Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stamm (U.S. Patent No. 6711616), in view of Carter (U.S. Patent No. 5371883), and further in view of Dummermuth (U.S. Patent No. 6009454).

42.    Stamm and Carter were cited in the last office action.

43.     As per claim 18, Stamm teaches the invention substantially as claim including

method for distributing an execution of a plurality of tasks by a system controller, the

plurality of tasks configured to be processed by a plurality of processing resources in a

distributed processing framework (DPF) system, the method comprising:

        allocating a respective processing resource to execute each task of the plurality

of tasks; and

        releasing the plurality of processing resources upon receiving a result of an

execution for each of the plurality of tasks (col. 5, lines 48-53).

        Stamm did not specifically teach loading a plurality of tasks to be executed.


44.     However, Stamm disclosed in response to a request from a client, the server

selects a subtask for execution (col. 1, lines 59-60).


45.     It would have been obvious to one of an ordinary skill in the art at the time the

invention was made to have recognized in response to requests the controller must load

a plurality of task available for selecting a task for execution.  Stamm disclosed the step

of a server selects a subtask/task for execution.  Therefore it would have been obvious

that the server would load the task/subtask to be available for selecting a task/subtask

for execution.

46.    In addition, Stamm did not specifically teach deploying a first task of the plurality

of tasks to a first processing resource of the plurality of processing resources; deploying

a second task of the plurality of tasks to a second processing resource of the plurality of

processing resources upon receiving a result of an execution of the first task; releasing

the plurality of processing resources upon receiving a result of an execution for each of

the plurality of tasks.

47.    However, Carter teaches deploying a first task of the plurality of tasks to a first

processing resource of the plurality of processing resources (col. 27, lines 17-27); and

deploying a second task of the plurality of tasks to a second processing resource of the

plurality of processing resources upon receiving a result of an execution of the first task

(col. 27, lines 28-31).

48.    It would have been obvious to one of an ordinary skill in the art at the time the

invention was made to have combined the teaching of Stamm and Carter because

Carter deploying a first task to a first processing resource and deploying a second task

to a second processing resource upon receiving a result of an execution of the first task

would improve the performance of Stamm's system by provide an operating system that

provides the capability of executing concurrent tasks or process (Carter, col. 1, lines 45-

46).

49.     In addition, Stamm and Carter did not specifically teach allocating computing resources to tasks prior to the next operation.

50.     However, Dummermuth teaches allocating computing resources to tasks prior to proceeding to a next operation (col. 8, lines 44-50).

51.     It would have been obvious to one of an ordinary skill in the art at the time the invention was made to have combined the teaching of Stamm, Carter and Dummermuth because Dummermuth teaching of allocated computing resource to tasks prior to the next operation would improve the integrity of Stamm and Carter's system by allowing multiple tasks to be executed with apparent simultaneity (Dummermuth, col. 1, lines 11-12).

52.     As per claim 19, Stamm further teaches caching the result of the execution for each of the plurality of tasks (col. 3, lines 35-42).

53.     As per claim 20, Stamm teaches allocating the respective processing resource to execute each task of the plurality of tasks includes:

searching a registry service for the processing resource having a plurality of attributes identical to a plurality of attributes of each task (col. 4, lines 11-13; col. 8, lines 18-19); and

allocating each of the processing resources having attributes identical to the

plurality of each of the tasks for the execution of the task having the identical attributes

(col. 4, lines 13-15).

54.     Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stamm

(U.S. Patent No. 6711616), in view of Carter (U.S. Patent No. 5371883), in view of

Dummermuth (U.S. Patent No. 6009454), as applied in claim 18, and further in view of

Downs (U.S. Patent No. 6112243).

55.     Stamm, Carter, and Downs were cited in the last office action.

56.     As per claim 21, Stamm, Carter, and Dummermuth teach the invention

substantially as claimed in claim 18.  Stamm, Carter, and Dummermuth did not

specifically teach the registry service is a look up service.

57.     However, Carter teaches the registry service is a look up service (fig. 2, item 32;

col. 3, lines 65-67).

58.     It would have been obvious to one of an ordinary skill in the art at the time the

invention was made to have combined the teaching of Stamm, Carter, Dummermuth,

and Downs because Downs look up service would improve the integrity of Stamm

Carter, and Dummermuth's system by offering a minimum level of service and a level of

guarantee so that clients can select a variety of options that corresponding to client's

task, cost, and time requirement (Downs, col. 2, lines 32-34).

59.     Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stamm

(U.S. Patent No. 6711616), in view of Carter (U.S. Patent No. 5371883), in view of

Dummermuth (U.S. Patent No. 6009454), as applied in claim 18, and further in view of

Gross (U.S. Patent No. 5371883).

60.     Stamm, Carter, and Gross were cited in the last office action.

61.     As per claim 22, Stamm, Carter, and Dummermuth teach the invention

substantially as claimed in claim 18.  Stamm, Carter, and Dummermuth did not

specifically teach the DPF is a distributed test framework (DTF) system.

62.     However, Gross teaches the DPF is a distributed test framework (DTF) system

(col. 1, lines 3-5).

63.     It would have been obvious to one of an ordinary skill in the art at the time the

invention was made to have combined the teaching of Stamm, Carter, Dummermuth,

and Gross because Gross testing system would improve the performance of Stamm,

Carter, and Dummermuth's system by providing a centralized test environment with a

single control process which exclusively governs test sequencing and timing and

allowing easier synchronization of the execution of testing across multiple machine (col. 1, lines 66-68; col. 2, lines 1-3).

### *Response to Arguments*

64.    Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

65.    Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

66.    Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Jennifer N. To whose telephone number is (571) 272-

7212.  The examiner can normally be reached on M-T 7AM- 4:30 PM, F 7AM- 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Meng-Ai An can be reached on (571) 272-3756.  The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Jennifer N To
Examiner
Art Unit 2195

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